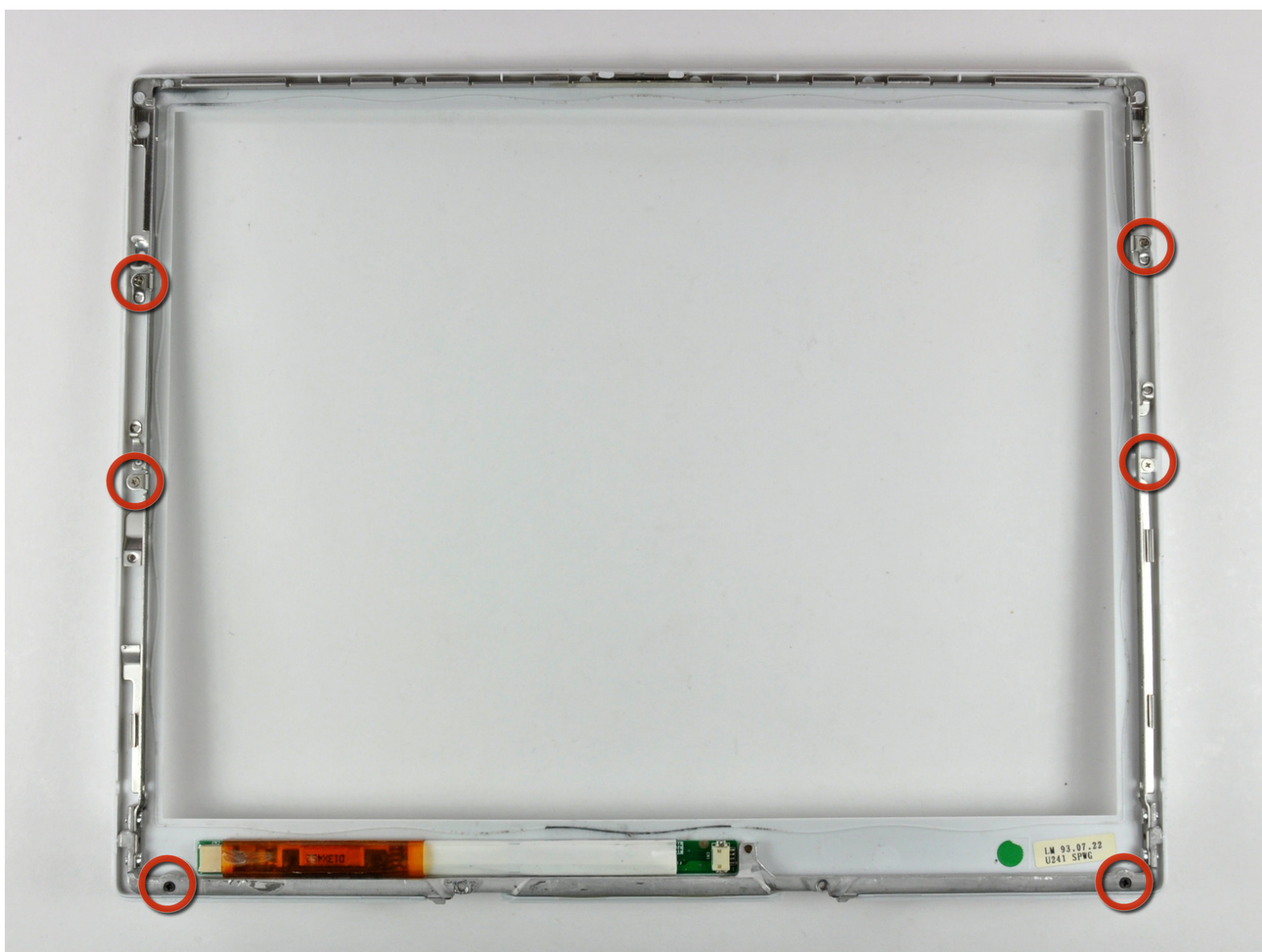




iBook G4 14" 933 MHz-1.33 GHz Clutch Hinges Replacement

Written By: Walter Galan



INTRODUCTION

Replace your broken display hinges to make your display open silky-smooth.



TOOLS:

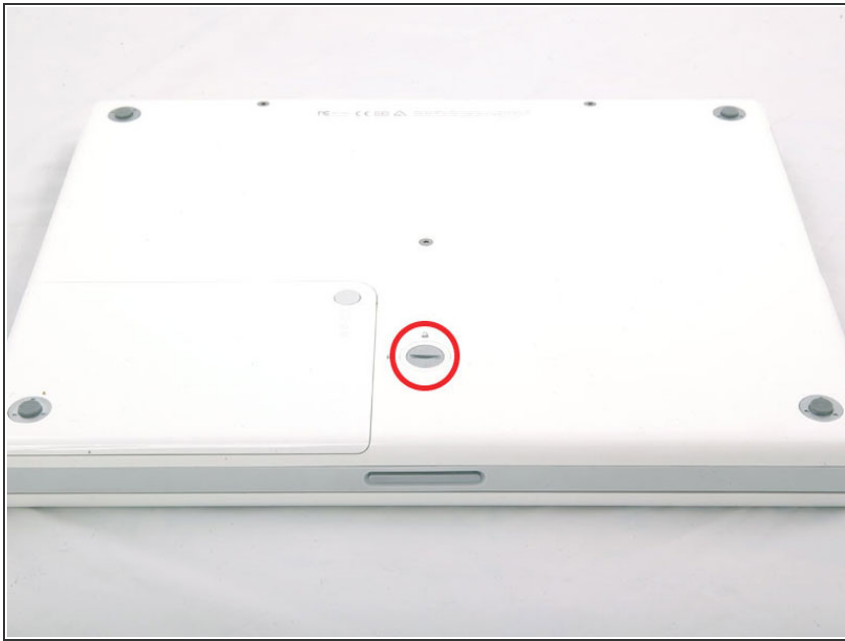
- [1.5mm Hex Screwdriver](#) (1)
- [Coin](#) (1)
- [Phillips #00 Screwdriver](#) (1)
- [Flathead 3/32" or 2.5 mm Screwdriver](#) (1)
- [Spudger](#) (1)
- [T8 Torx Screwdriver](#) (1)



PARTS:

- [iBook G3 or G4 14" Clutch Hinges](#) (1)

Step 1 — Battery



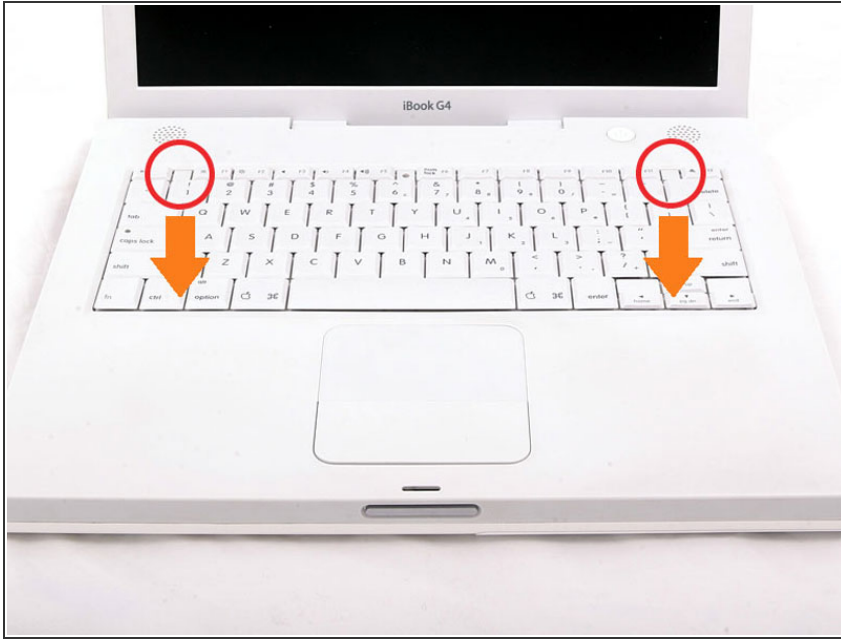
- Use a coin to rotate the battery locking screw 90 degrees clockwise.

Step 2



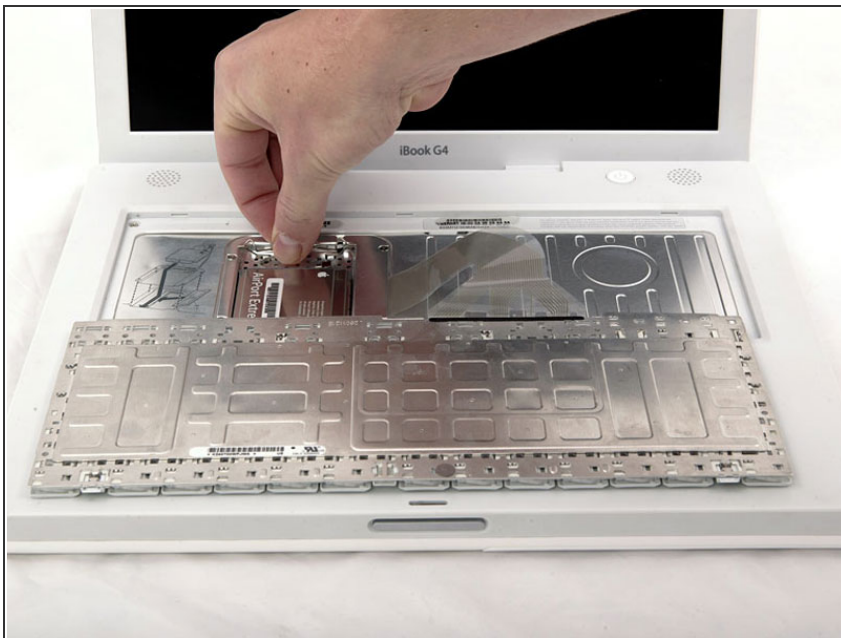
- Lift the battery out of the computer.

Step 3 — Keyboard



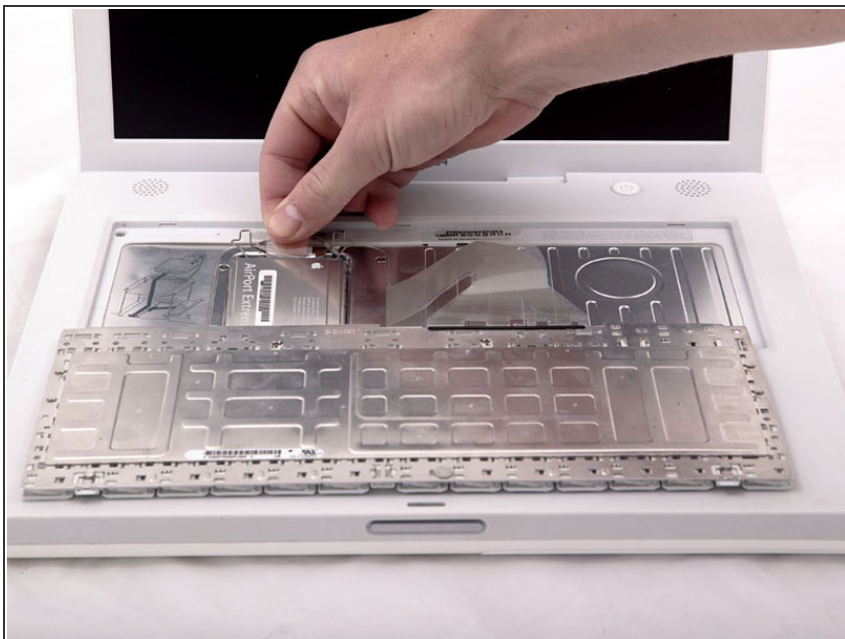
- Pull the keyboard release tabs toward you and lift up on the keyboard until it pops free.
- ⓘ If the keyboard does not come free, use a small flathead screwdriver to turn the keyboard locking screw 180 degrees in either direction and try again.
- Flip the keyboard over, away from the screen, and rest it face-down on the trackpad area.

Step 4



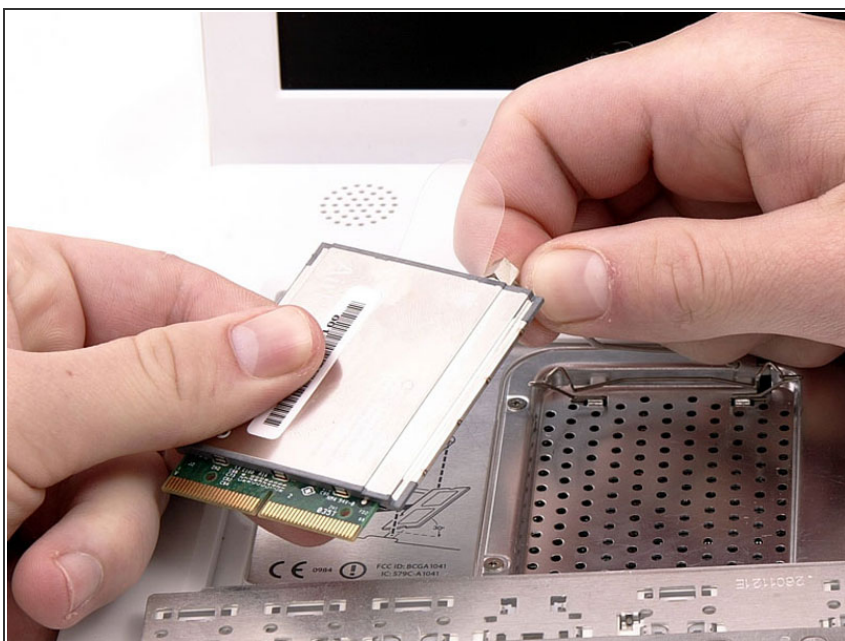
- ⓘ If the computer has an AirPort card installed, follow the next three steps to remove it.
- Push the wire clasp away from the AirPort card and toward the display, then rotate up to free it from the RAM shield.

Step 5



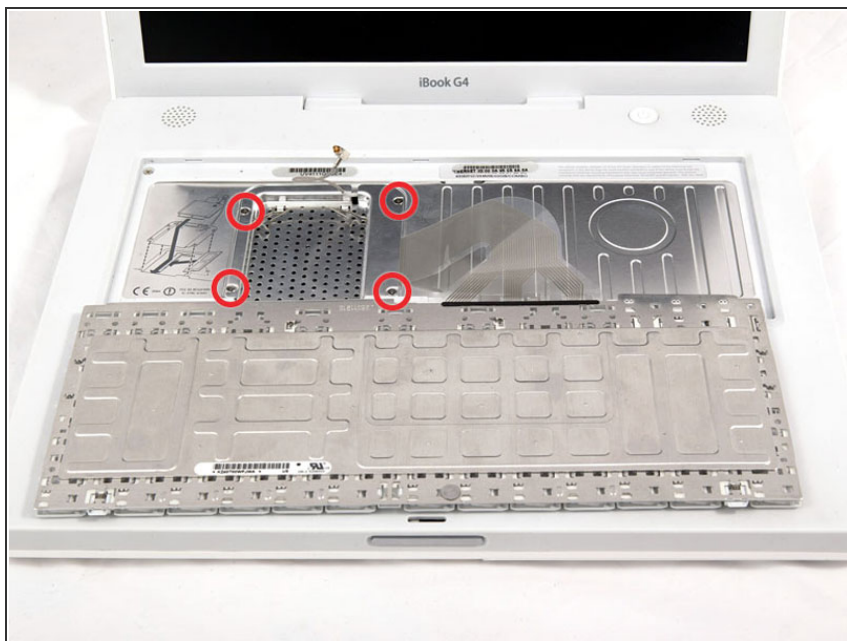
- Grasp the clear plastic tab on the AirPort card and pull toward the display.

Step 6



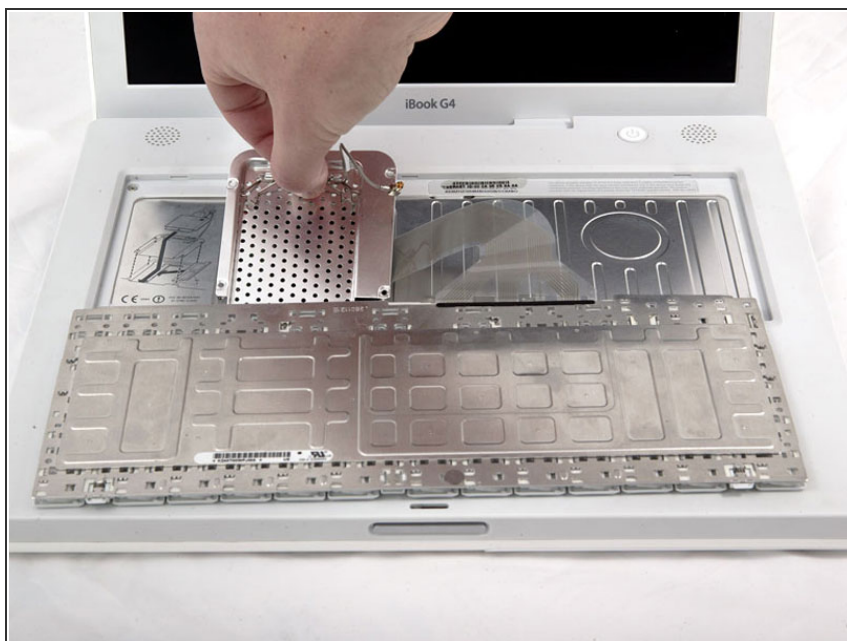
- Hold the AirPort card in one hand and use your other hand to remove the antenna cable.

Step 7



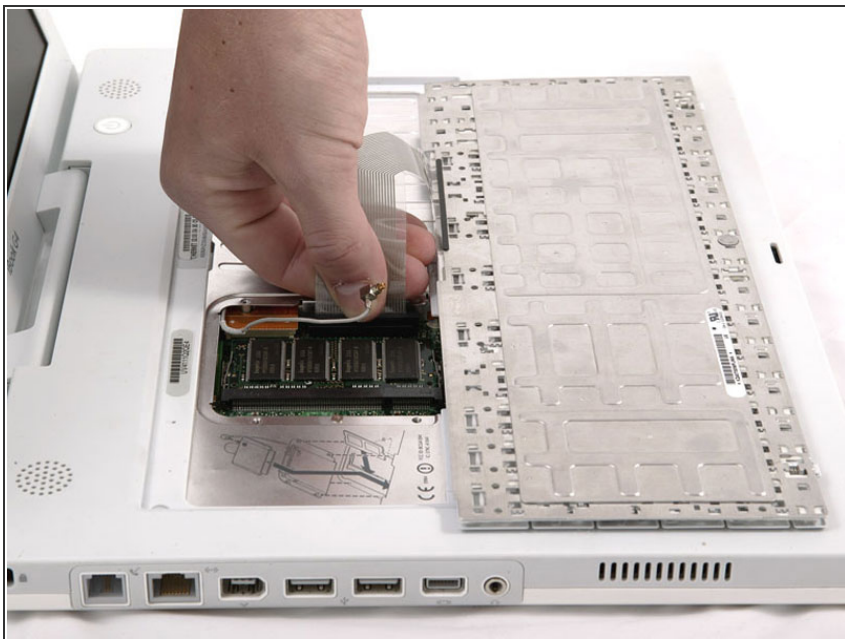
- Remove the four silver Phillips screws that secure the RAM shield.

Step 8



- Grasp the metal bracket on top of the RAM shield and pull upward to remove the shield.

Step 9



- Pull the keyboard cable up from the logic board, holding the cable as close to the connector as possible.
- ★ Make sure that you reconnect the keyboard cable before replacing the RAM shield.

Step 10 — Lower Case



- Use a pin (or anything you like) to remove the three rubber feet from the lower case.

Step 11



- Remove the three newly-revealed Phillips screws.

Step 12



- Use a spudger or small flathead screwdriver to pry up the three metal rings that housed the rubber bumpers.

Step 13



- Remove the three hex screws using a T8 Torx screwdriver (or Allen screws using an Allen key if these are used).

★ The shorter screw is in the center of the computer.

Step 14



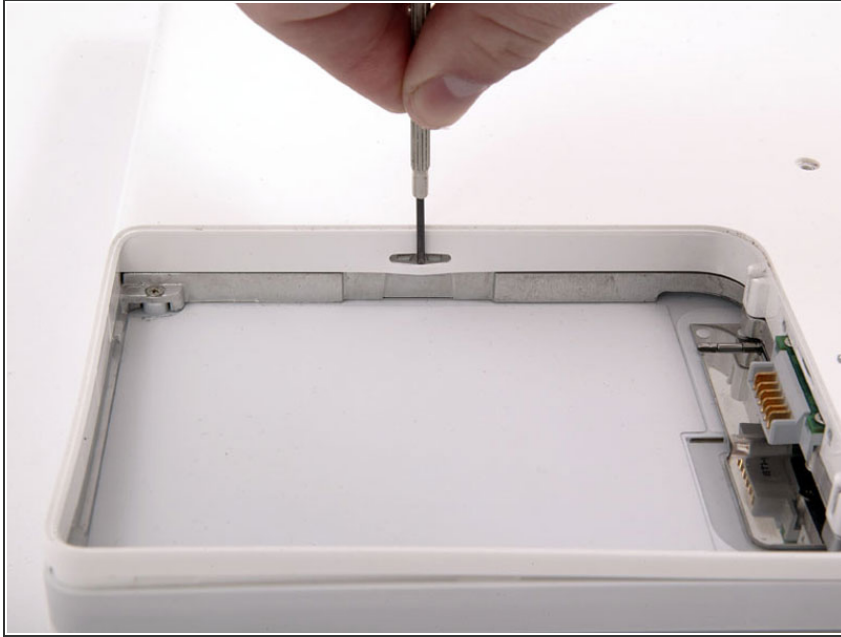
- Remove the two Phillips screws on either side of the battery contacts.

Step 15




- ❗ Breathe deeply. Trying times are ahead, but we promise the lower case does come off.
- Push the thin rims of the lower case surrounding the battery compartment in, bending them past the tabs, and then lift up to free that corner of the lower case.

Step 16



- There is a slot on the wall of the battery compartment that locks the lower case in place. Use a small flathead screwdriver to pry out the slot's lower rim and pull up on the lower case to free the slot from the tabs holding it.

 Be careful not to break this clip!

Step 17



- Run a spudger along the seam between the lower case and upper case on the front of the computer to free the tabs locking the lower case. Pull up on the lower case and continue to use the spudger as necessary until you hear three distinct clicks.

Step 18



- Continue to run the spudger around the front, right corner. There are two tabs on the port side of the computer, one near the front corner and one near the sound-out port.

Step 19



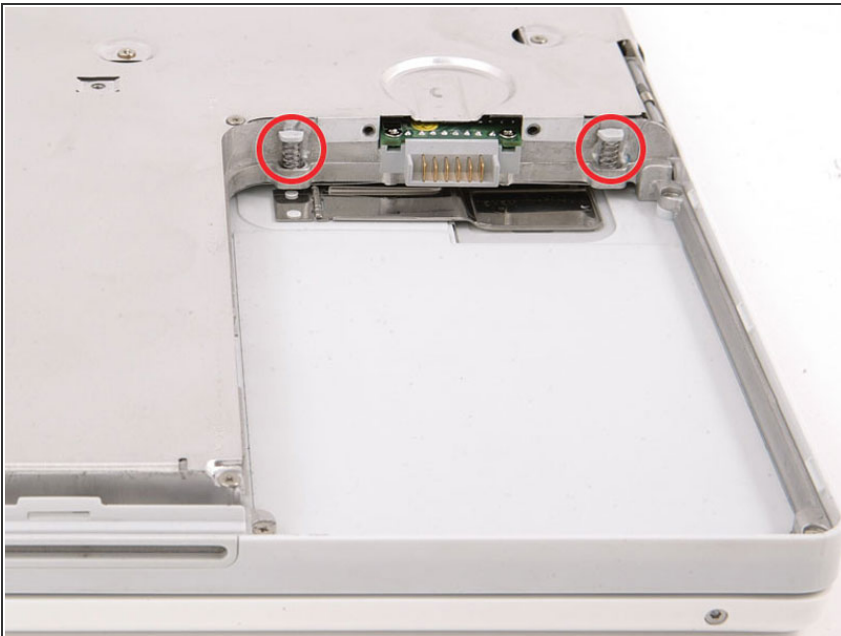
- There are three tabs over the optical drive that must be released before the lower case can come off. Slide the spudger into the lower case above the optical drive and run it toward the back of the computer until you hear three distinct clicks.

Step 20



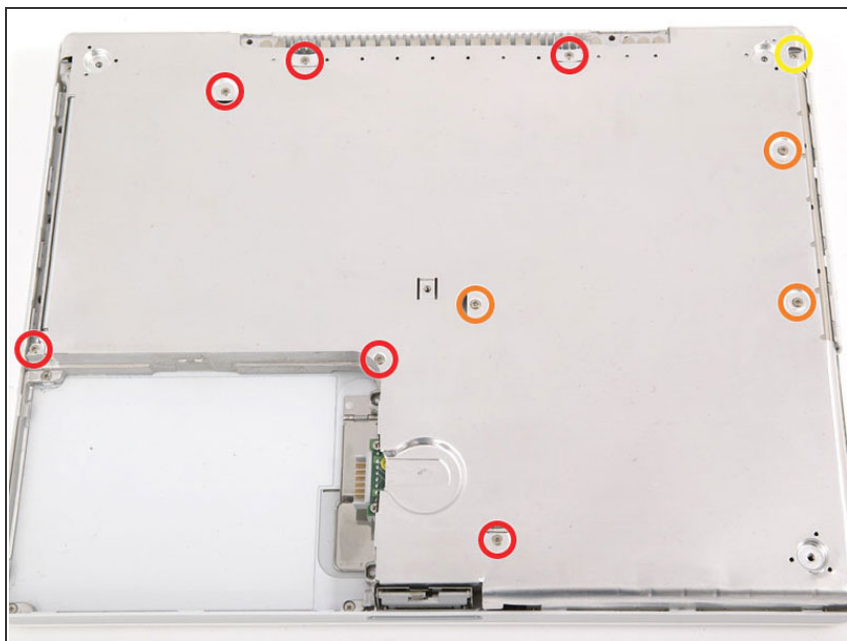
- Once the front and sides of the lower case are free, turn the computer so that the back is facing you and pull the lower case up and toward you until the back tabs pop free (it may be helpful to jiggle the case up and down).

Step 21



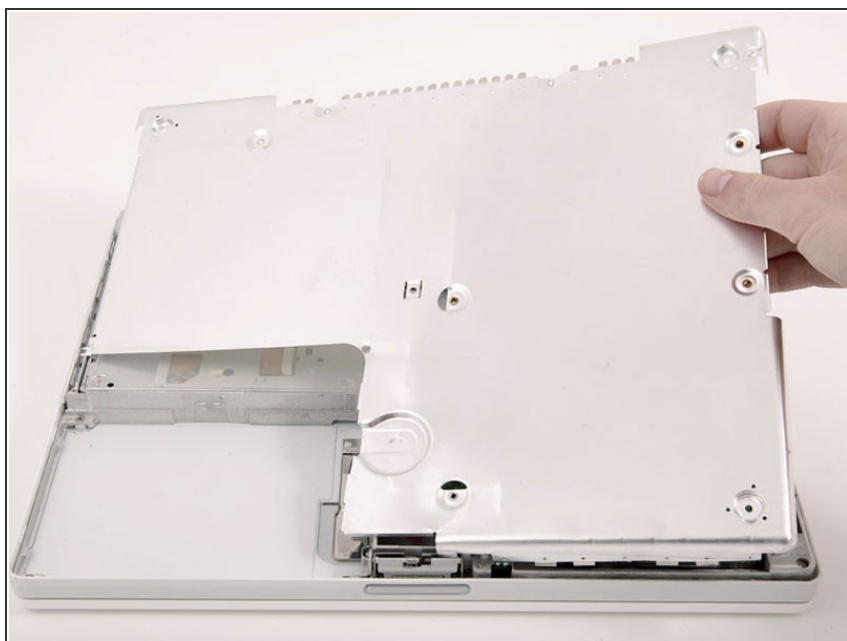
- Remove the small greasy springs with white plastic caps from either side of the battery contacts.

Step 22 — Bottom Shield



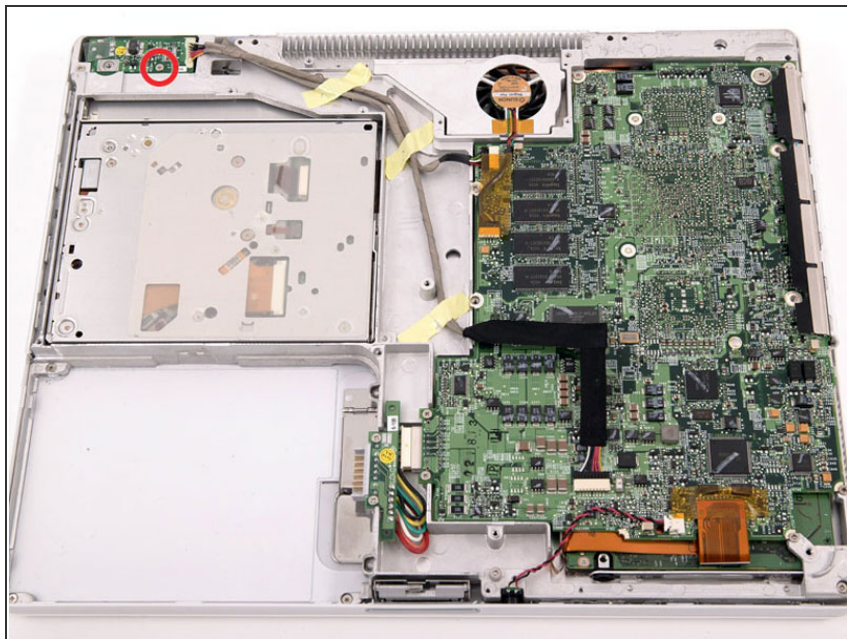
- Remove the following 10 screws from the bottom shield:
 - Six 3 mm Phillips
 - Three 7.5 mm Phillips
 - One 14 mm Phillips

Step 23



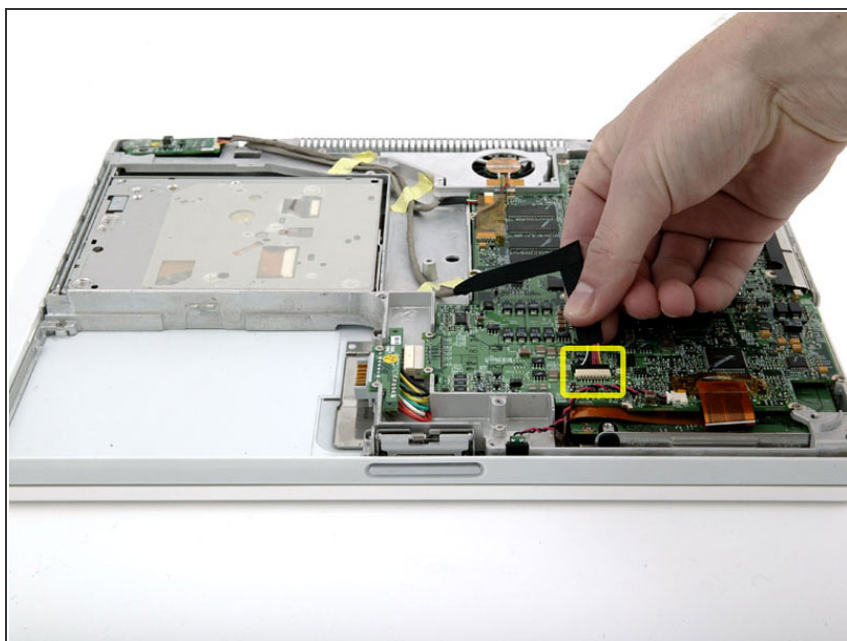
- Lift the bottom shield off.

Step 24 — DC-In Board



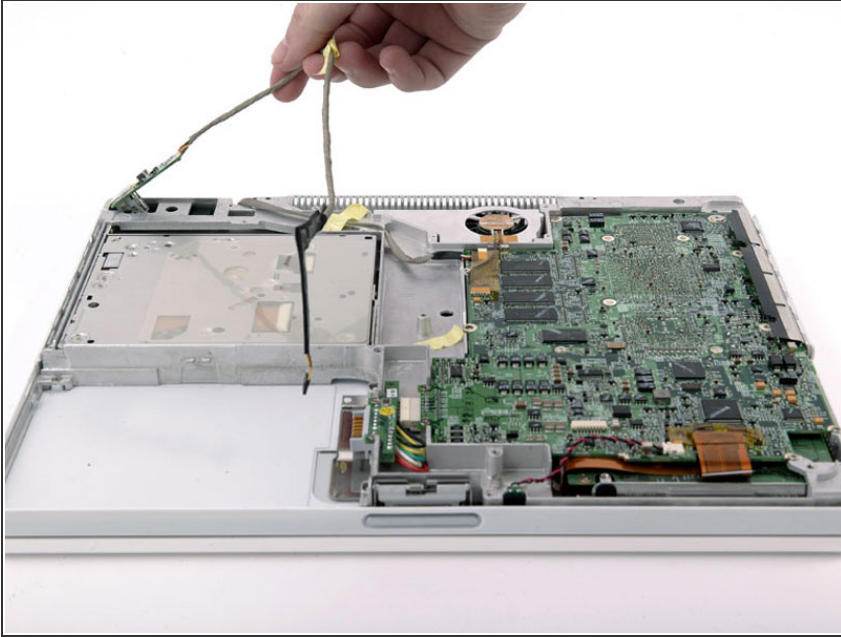
- Remove the single Phillips screw securing the DC-In board.

Step 25



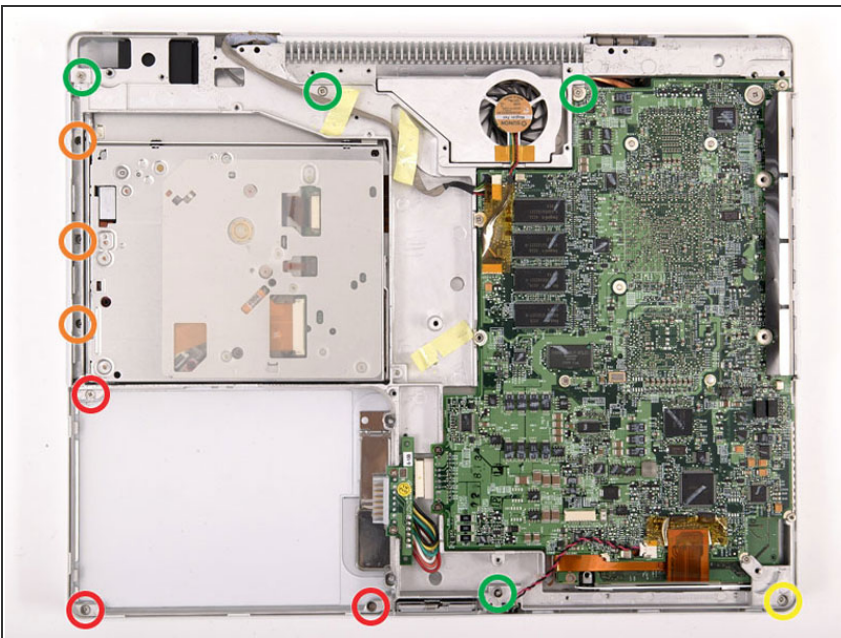
- Disconnect the DC-In cable from the logic board.

Step 26



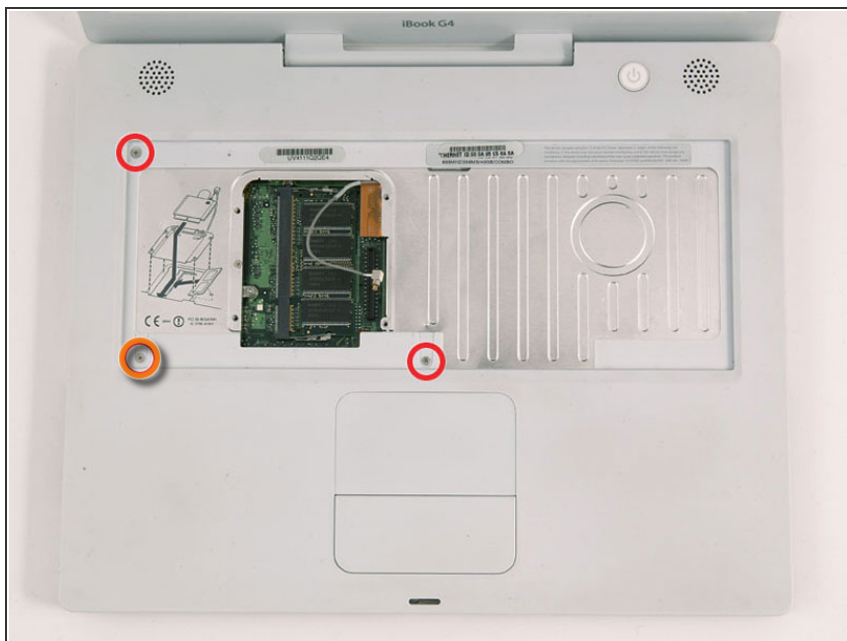
- Deroute the cable from around the optical drive, removing tape as necessary, and angle the DC-In board out of its compartment.

Step 27 — Upper Case



- Remove the following 11 screws from the bottom of the computer:
 - Three 3 mm Phillips around the battery compartment. (Some models may only have two screws.)
 - Three 4.5 mm Phillips along the optical drive bezel. (a magnetic screwdriver may help to lift these screws out)
 - One 11 mm Phillips in the lower right corner. (if present)
 - Four 14.5 mm Phillips.

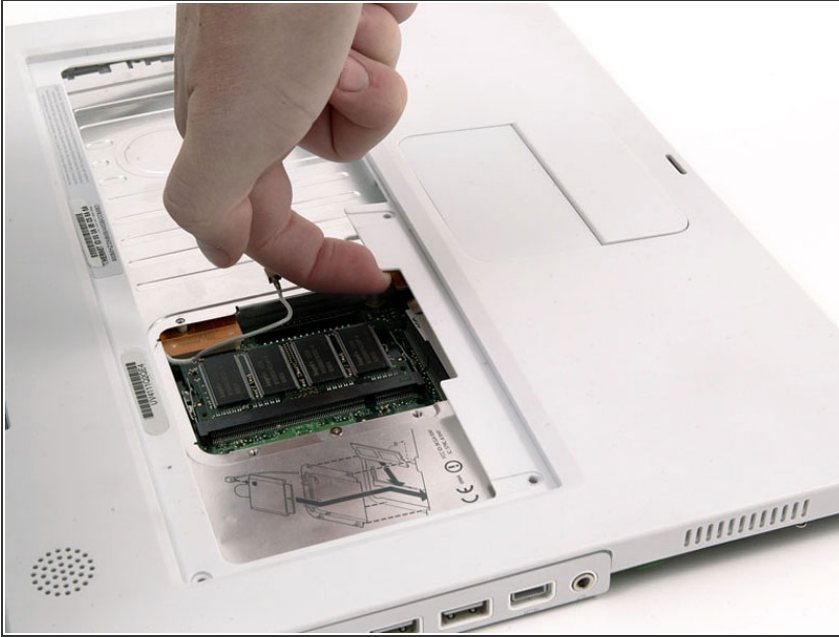
Step 28



i We recommend placing the computer on a soft cloth from this point on to prevent damaging the logic board.

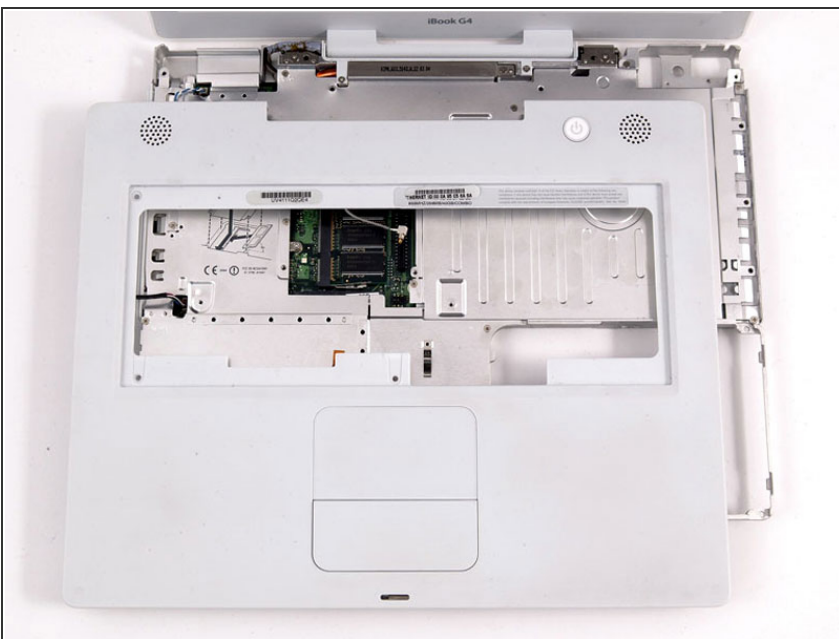
- Turn over the computer and open it.
- Remove the 2 Phillips screws (3mm) from the edges of the keyboard area.
- Remove the 4 mm Phillips screw from the lower left corner.

Step 29



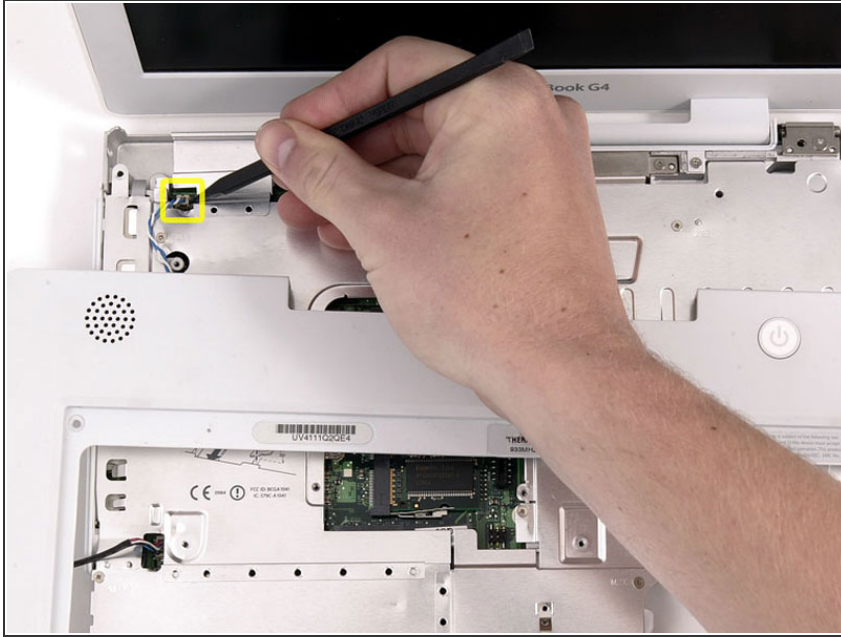
- i** Before you can yank the upper case off, you must disconnect the trackpad connector, the blue and white power cable, and speaker cable as described in the next steps. Be especially careful with these cables; never pull directly on the cables, but use a spudger to pry up the connector directly.
- Lift the upper case and use a spudger or your finger to disconnect the trackpad connector hidden beneath the white plastic tab. Due to model variations your trackpad connector may be different than the one pictured.

Step 30



- Carefully lift the upper case about half of an inch and move it so that you can access the power and speaker cables.

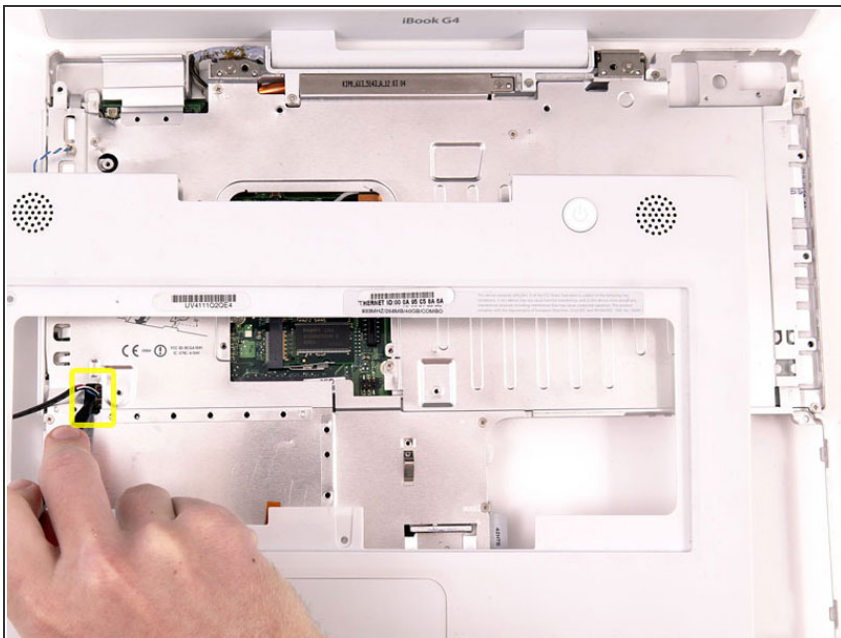
Step 31



⚠ The connectors at the ends of the cables are attached very firmly to the sockets on the logic board. Pulling directly on the cable will either separate the cable from its connector or the socket from the logic board.

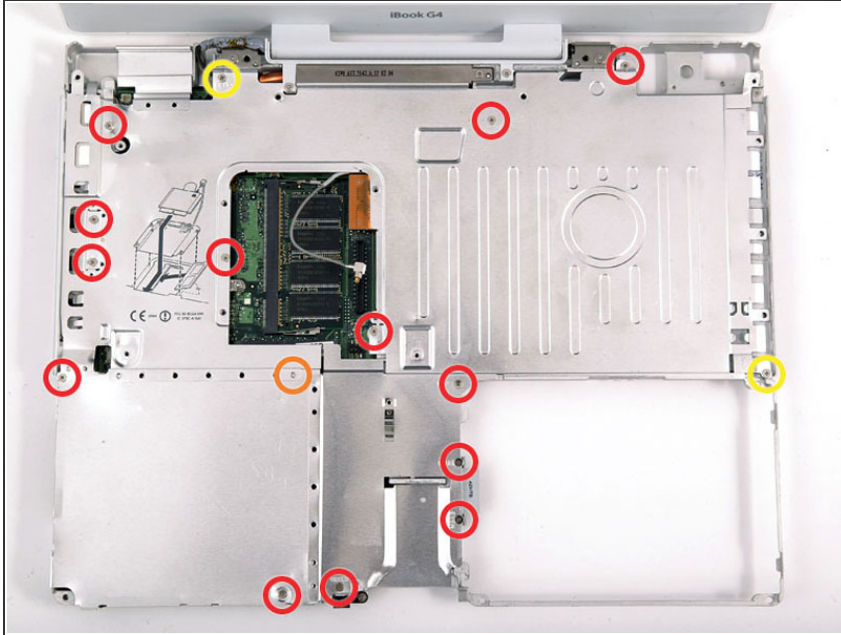
- Lift the upper case enough to disconnect the blue and white power cable from the logic board. Using your fingernails or a dental pick, carefully pry the connector from its socket. Make sure you're pulling only on the connector and not on the socket.

Step 32



- Carefully disconnect the multicolored speaker cable from the logic board. As before, make sure you're pulling only on the connector and not on the socket.

Step 33 — Top Shield



i The screw circled in orange may not be present in some models.

● Remove the following 16 screws:

● Thirteen 3 mm Phillips.

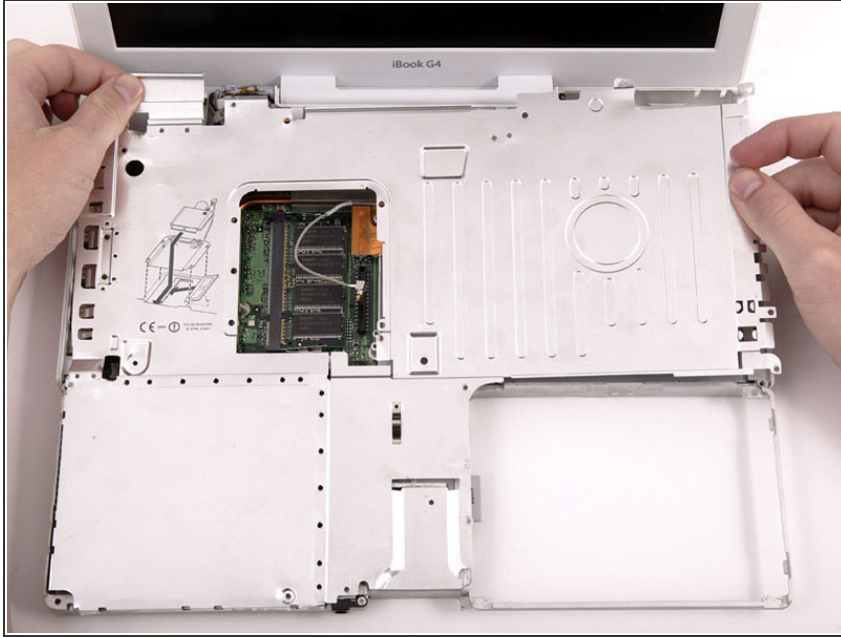
● One 3 mm Phillips. (actual screw not present in image)

● Two 4 mm Phillips.

★ Be sure to fit the screw near the left hinge through the loop in the display data cable, securing the cable to the upper case.

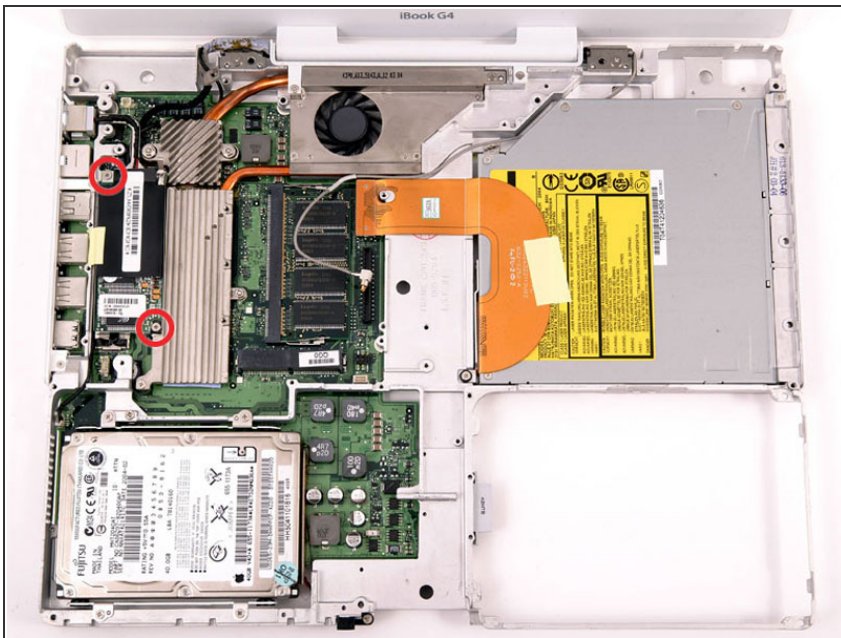
! Missing in this photo is the Bluetooth antenna present in some iBooks. It is located at the upper right corner of the battery compartment, just above the 4mm screw. You can see the bracket for the antenna in the photo. It is the two I-shaped holes just above the 4mm screw that must be removed in this step. To remove the antenna, slide it toward the LCD, and tilt it vertically back towards yourself.

Step 34



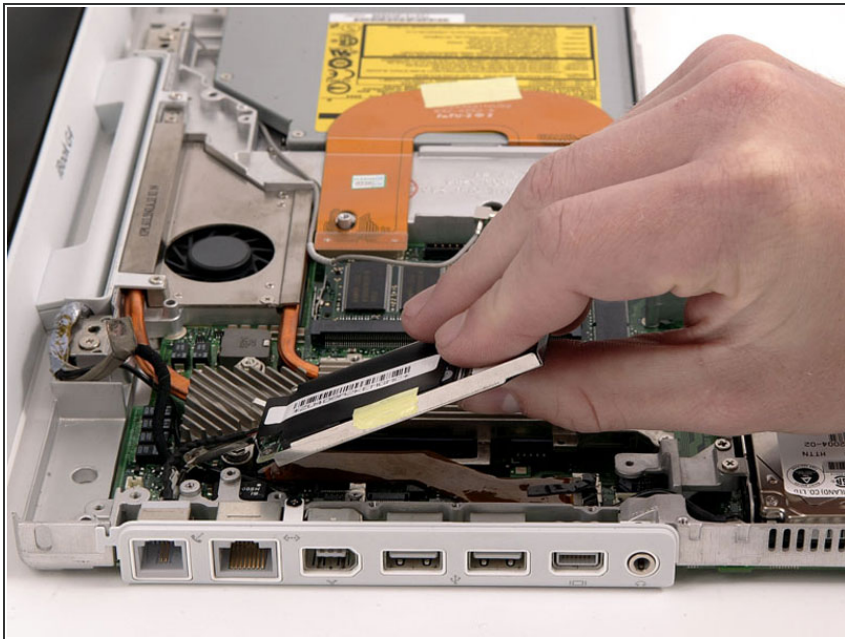
- Lift the top shield up from the right side, minding the upper left corner, which may catch on the metal framework.
- If your iBook has Bluetooth, as discussed in the previous step, you will need to slide the antenna through the lower I-shaped hole in the shield before completely removing the shield.

Step 35 — Modem



- ⓘ Due to variations between iBook G4 models, your modem may look slightly different from the picture. All of the following steps apply to either model.
- Remove the two Phillips screws at the corners of the modem.

Step 36



- Lift the modem and modem shield from the bottom.

Step 37



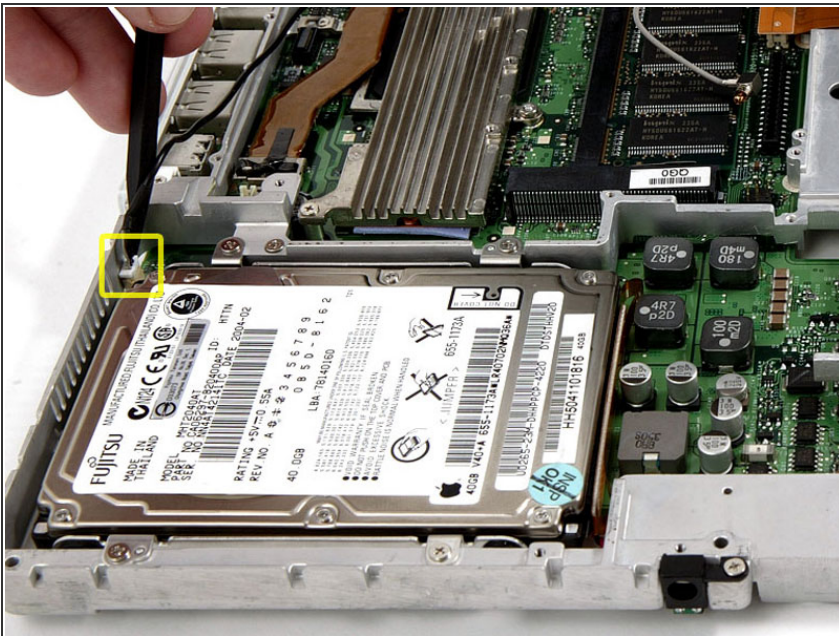
- Disconnect the RJ-11 cable from the top of the modem.
- ✦ When replacing the modem, first make sure that both the microphone and display data cables are routed beneath where the modem lies.

Step 38 — Display



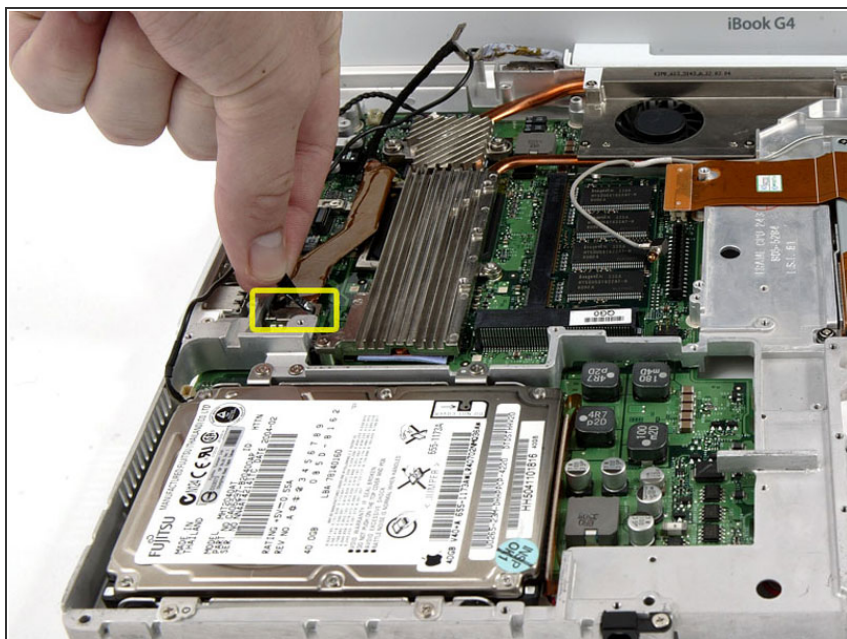
- Turn the computer over.
- Disconnect the inverter cable from the logic board and deroute it from the metal framework, removing tape as necessary.

Step 39



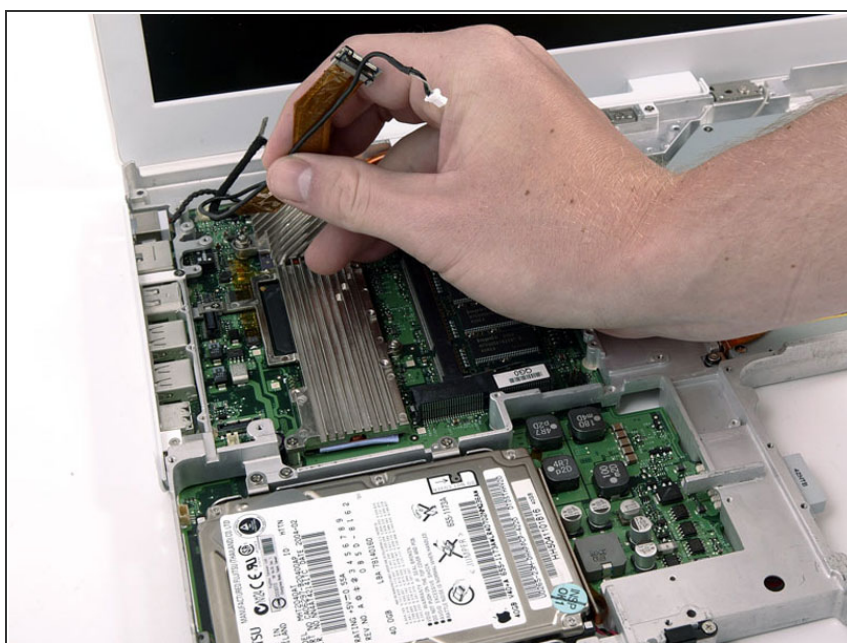
- Turn the computer back over.
- ⚠ The cable you're about to remove is very fragile - do not pull directly on the wires. Instead, try to pry up the connector directly, using a spudger or a small flathead screwdriver if necessary.
- Disconnect the microphone cable at the front of the computer, between the left side of the hard drive and the metal framework.

Step 40



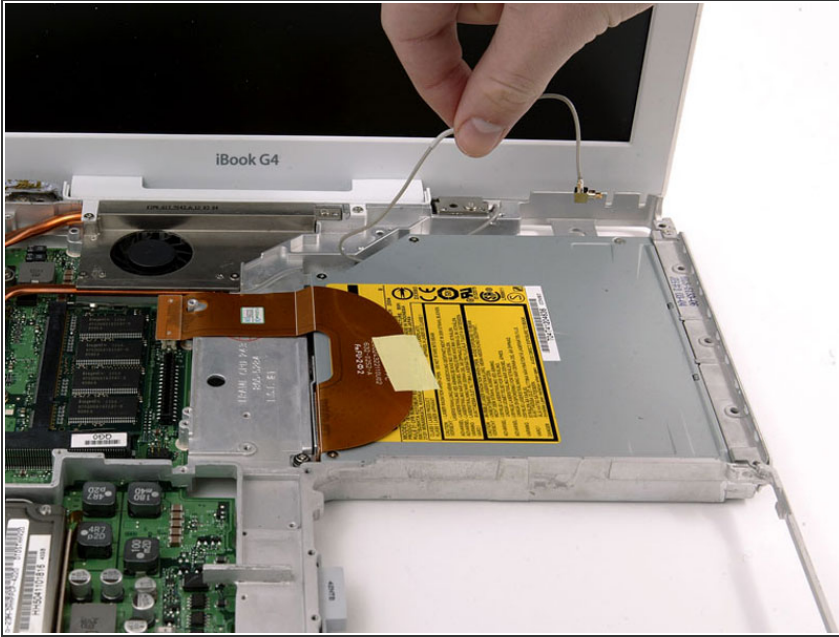
- Use the black plastic loop to disconnect the display data cable from the logic board.

Step 41



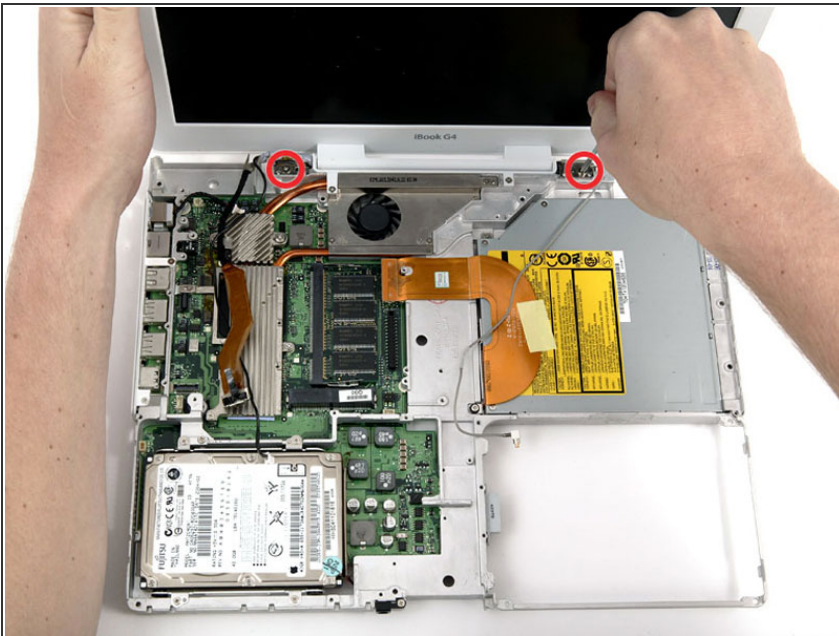
- Deroute the microphone and display data cables from the metal framework, removing tape as necessary.

Step 42



- Deroute the AirPort antenna cable from the metal framework, removing tape as necessary.

Step 43



- Support the display with one hand and remove the single Phillips screw on either side of the hinge (two screws total).
- ☑ The screws go in the outer holes on each side (you can see the threads in the correct hole).

Step 44



- Lift the display up and tilt it backwards, freeing it from the two metal alignment posts holding the hinges in place, and slide it away from you.

Step 45 — Rear Display Bezel



- Use a 1.5 mm hex screwdriver to remove the two hex screws on either side of the display (four screws total).
- ⓘ If you don't have a 1.5 mm hex driver, you can probably get these screws out with a T6 Torx screwdriver. However, if you use a T6 Torx driver you'll be more likely to strip the screws.

Step 46



- Use your thumbs to slightly separate the rear bezel from the front bezel.
- ⓘ It is helpful to hold the opposing corner of the display stationary to aid in flexing the rear bezel away from the display.

Step 47



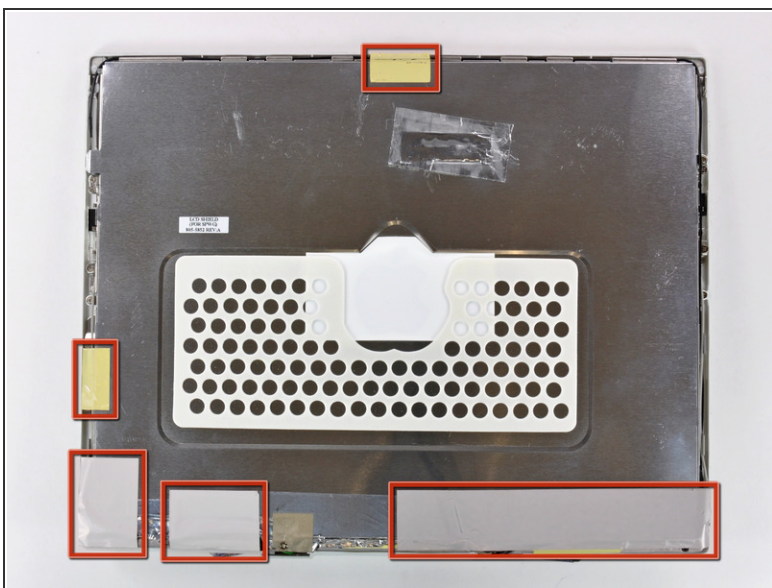
- Insert the flat end of a spudger into the gap between the front and rear bezels.
- Rotate your spudger until it is parallel to the front face of the display.
- Run the spudger around the perimeter of the display to separate the rear bezel from its retaining clips.

Step 48



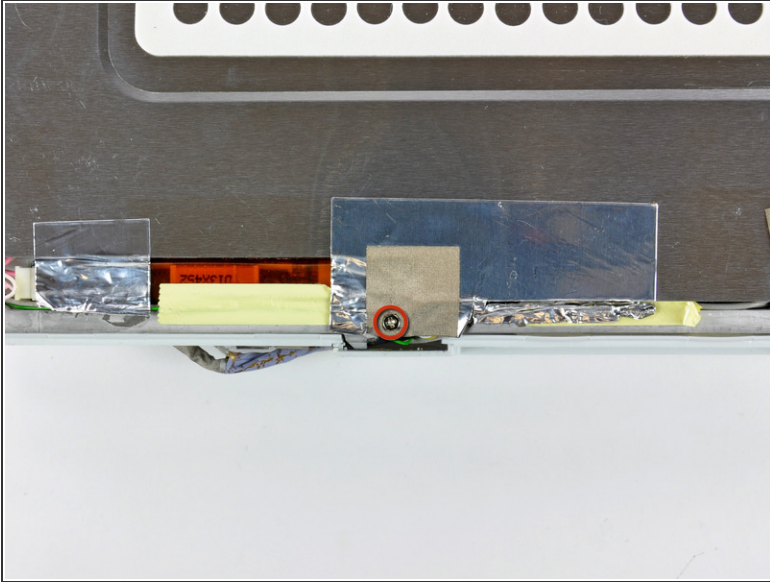
- Lift the rear bezel off the display.

Step 49 — LCD Cover



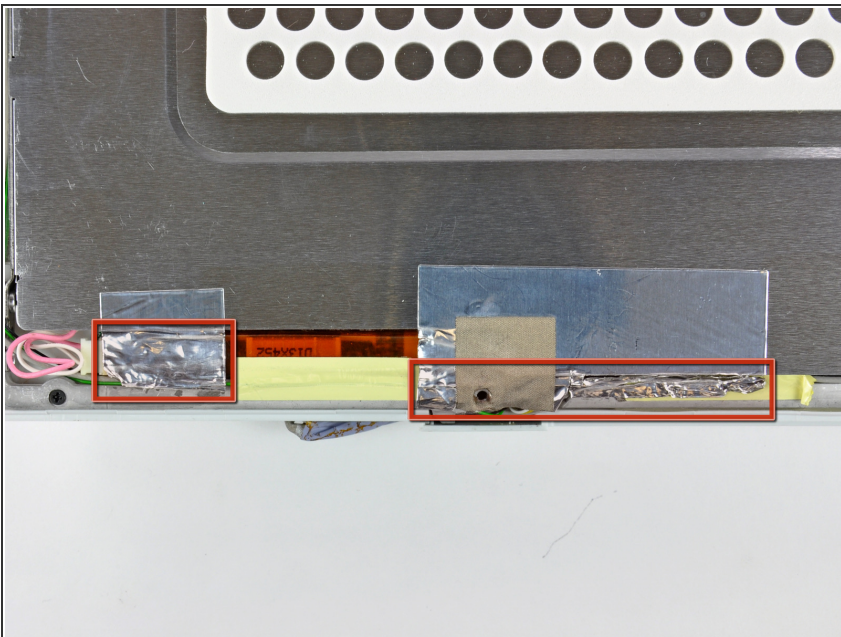
- Remove the pieces of readily removable tape from around the perimeter of the display.
- Carefully remove the aluminum tape covering the display data cable connection.

Step 50



- Remove the single screw inserted through the piece of EMI tape near the bottom edge of the display.
- Use the tip of a spudger to remove the small washer under the screw you just removed.

Step 51



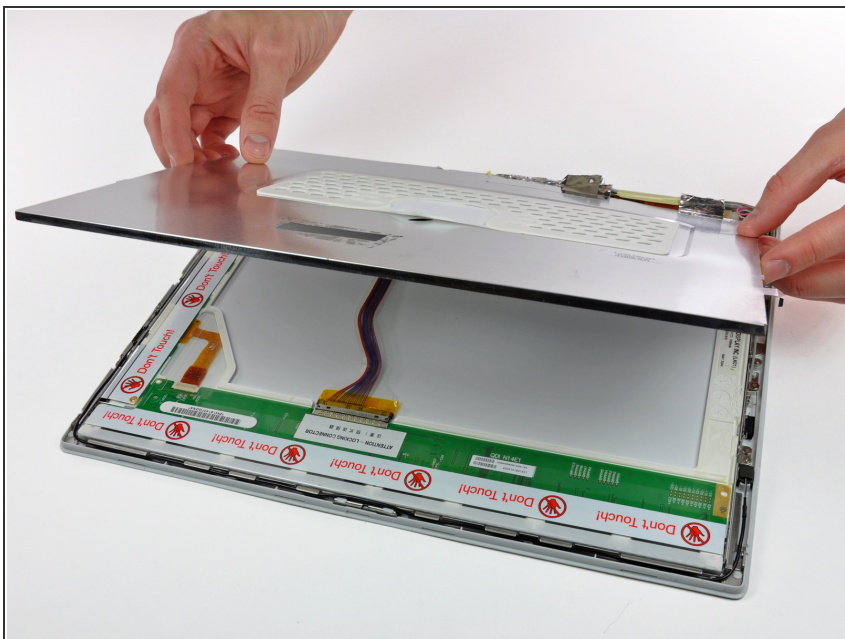
- Peel the aluminum/EMI tape off the cast aluminum frame of the clutch hinges.
- ⓘ It is not necessary to peel the tape off the thin steel LCD cover.

Step 52



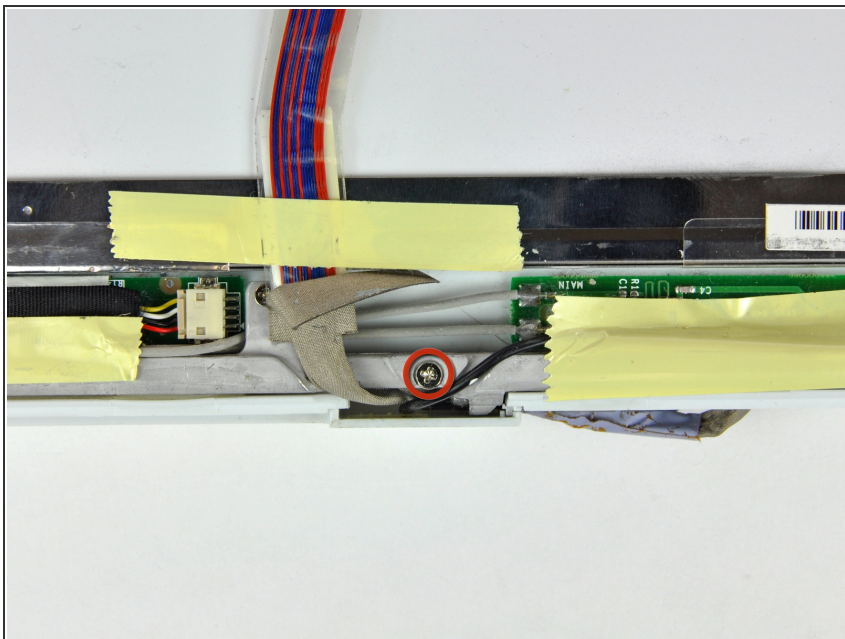
- Remove the two Phillips screws securing each side of the LCD to the clutch hinge frame (four screws total).

Step 53



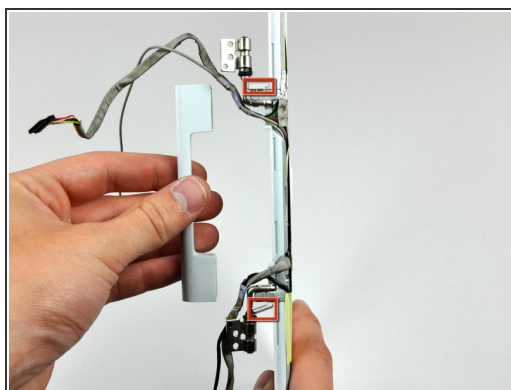
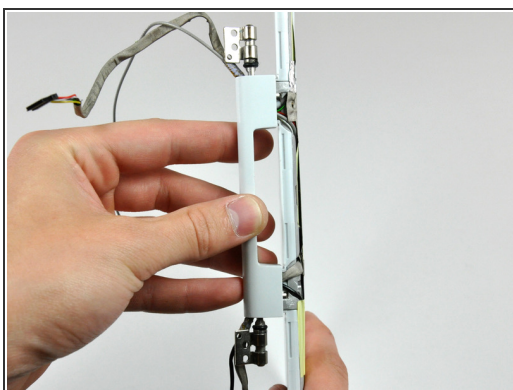
- Lift the thin steel LCD cover off the LCD.

Step 54 — Clutch Cover



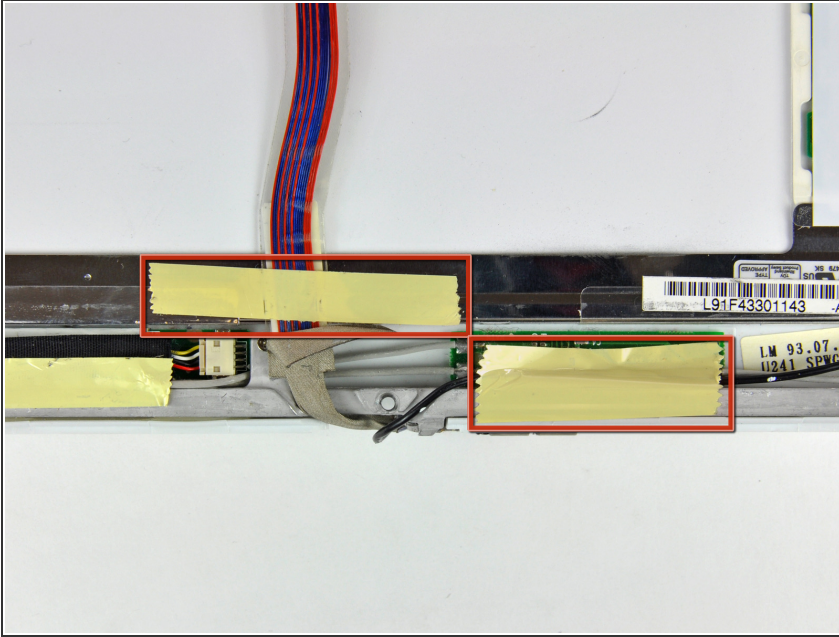
- Remove the second of the two Phillips screws securing the clutch cover to the cast aluminum frame of the clutch hinges.

Step 55



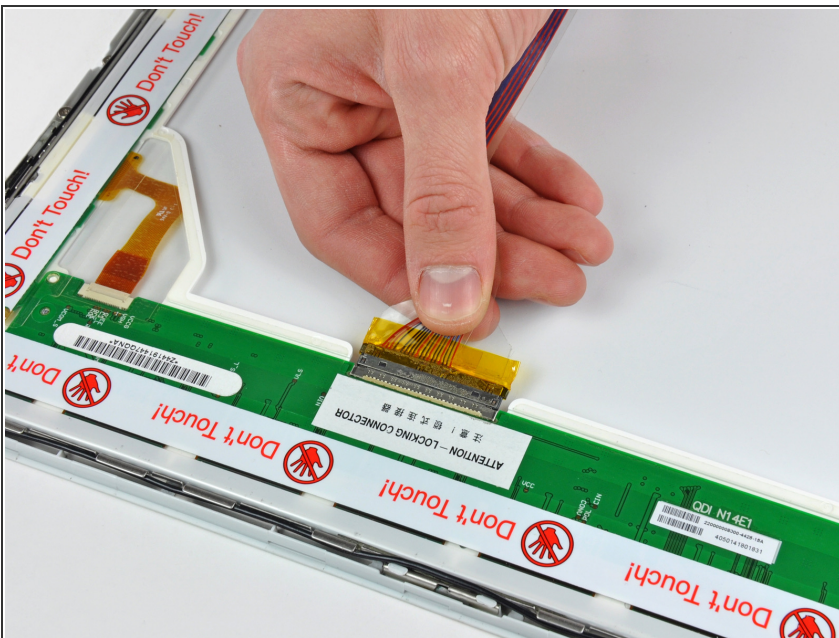
- Pull the clutch cover away from the front of the display.
- i** Keep track of the two covers that close the ends of the clutch cover. The third picture shows their correct orientation on the clutch cover.

Step 56 — Display Data Cable

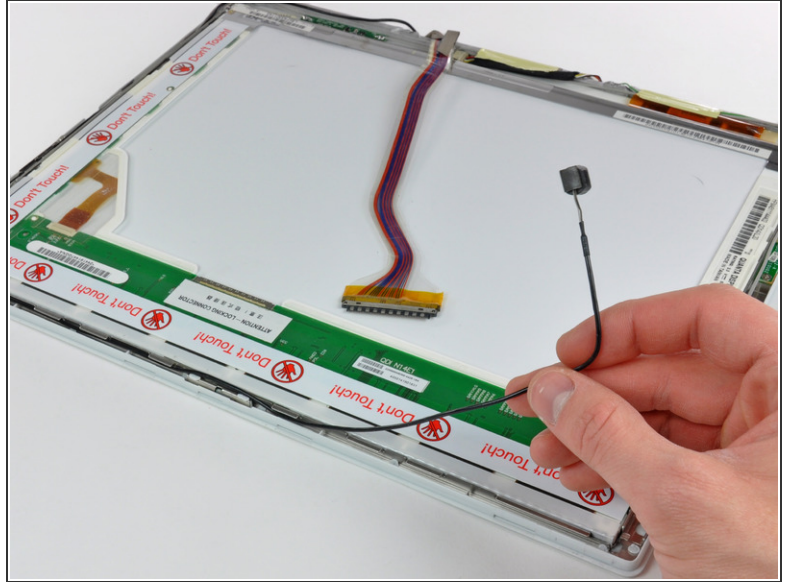


- Remove the pieces of tape covering the display data and microphone cables near the bottom edge of the display.

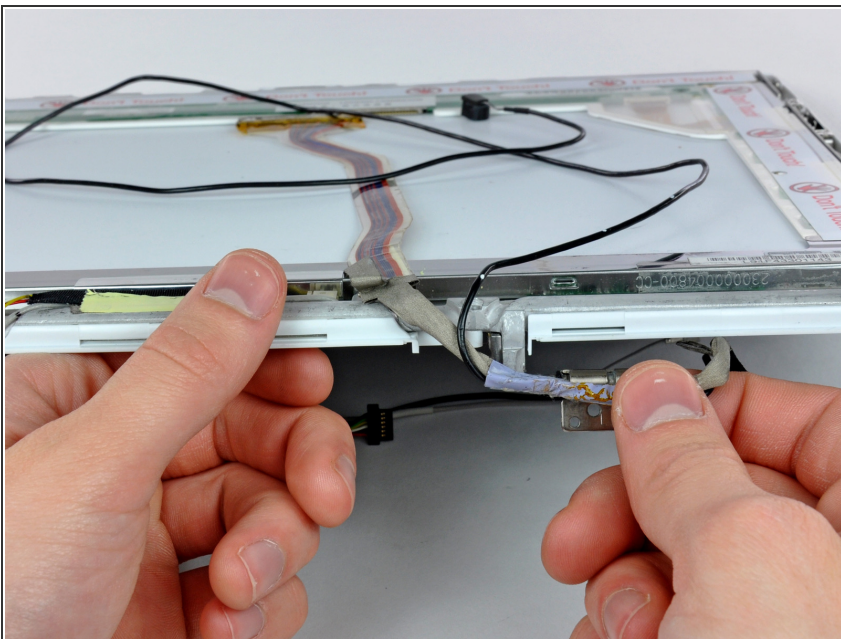
Step 57



- Disconnect the display data cable by pulling its connector away from the socket on the LCD.
- ⓘ Pull the connector parallel to the face of the LCD.
- Remove the display data cable from the display.

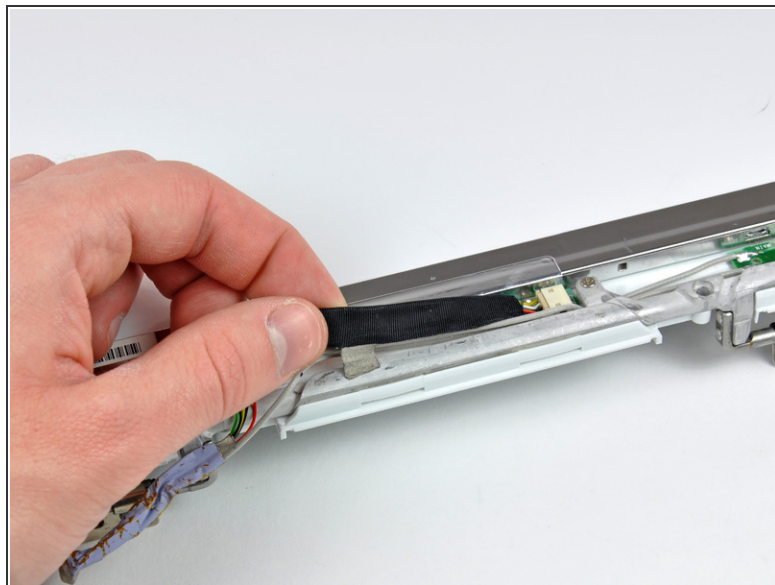
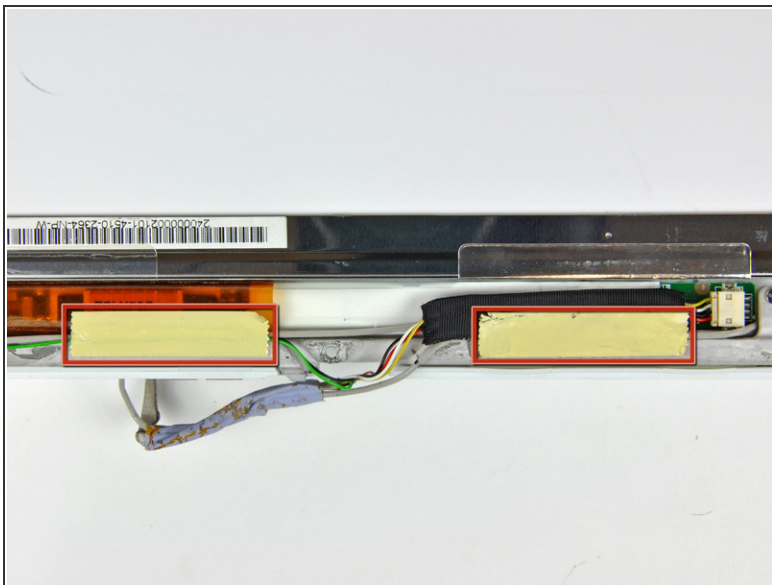


- ## Step 59



- Page 34 of 41

Step 60 — Inverter/AirPort Cables



- Remove the two pieces of tape covering the inverter/AirPort cables along the lower edge of the display.
- Carefully peel the inverter cable ground strap off the cast aluminum frame of the clutch hinges.

Step 61



- Disconnect the backlight cable from the inverter.

i It is helpful to use a spudger to push the backlight connector away from its socket while you lightly pull its cables away from the inverter.

Step 62



- Lift the LCD out of the display assembly.

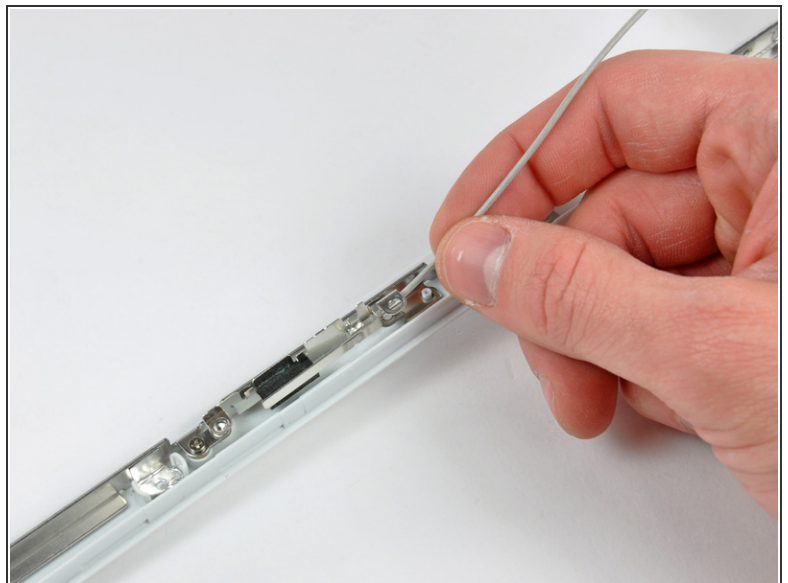
i It may be helpful to press the latch release button and open your display slightly to push the LCD out of the display assembly.

Step 63



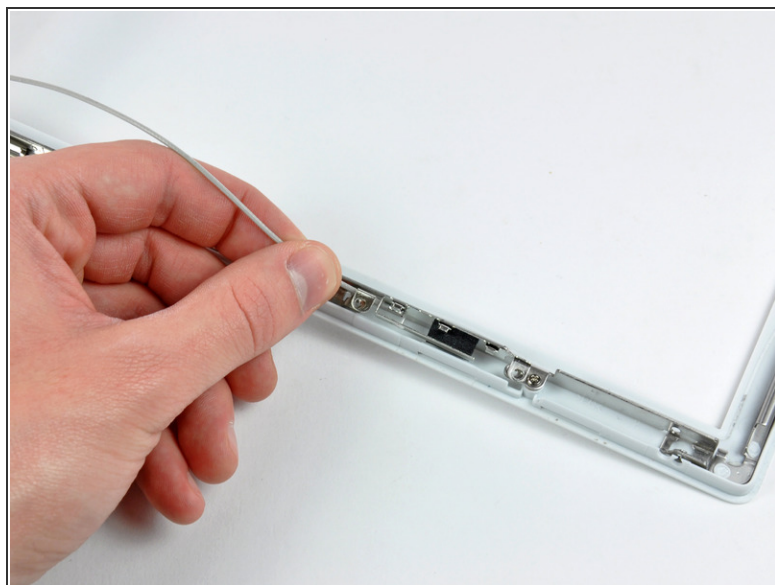
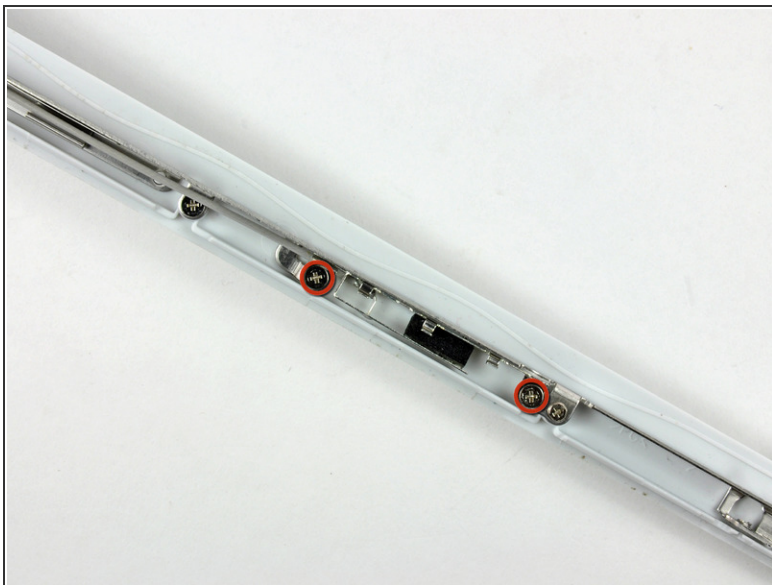
- Remove the single Phillips screw securing the reed switch board to the front bezel.
- Carefully lift the reed switch board off the metal frame of the clutch hinges.

Step 64



- Remove the two Phillips screws securing the right AirPort antenna to the clutch hinge frame.
- Carefully lift the right AirPort antenna off the clutch hinge frame.

Step 65



- Remove the two Phillips screws securing the left AirPort antenna to the clutch hinge frame.
- Carefully lift the left AirPort antenna off the clutch hinge frame.

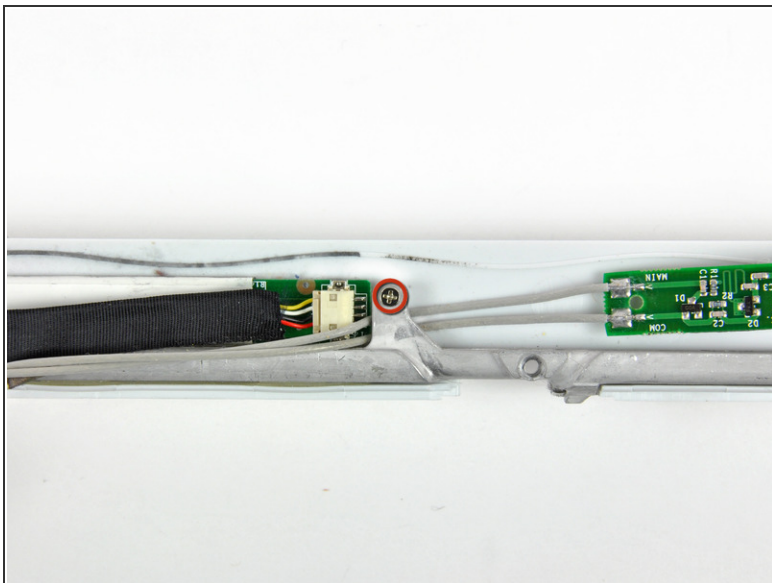
Step 66



- Use the flat end of a spudger to remove the antenna board from the front bezel.

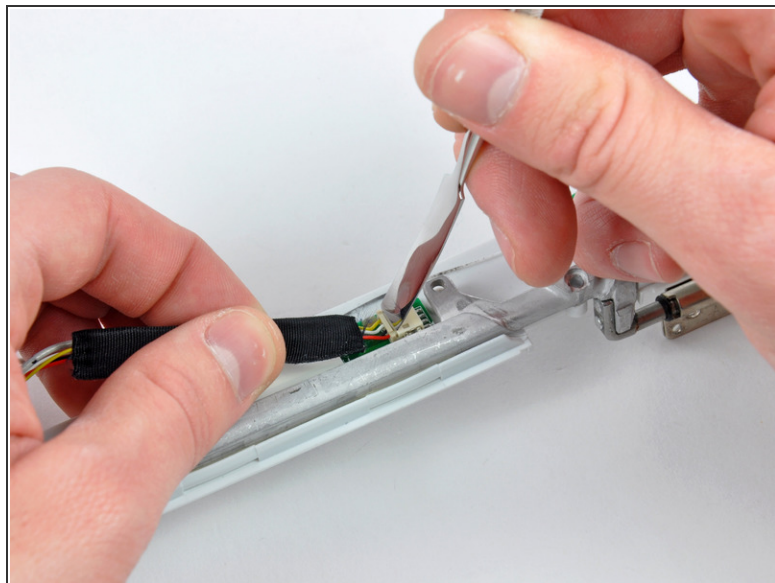
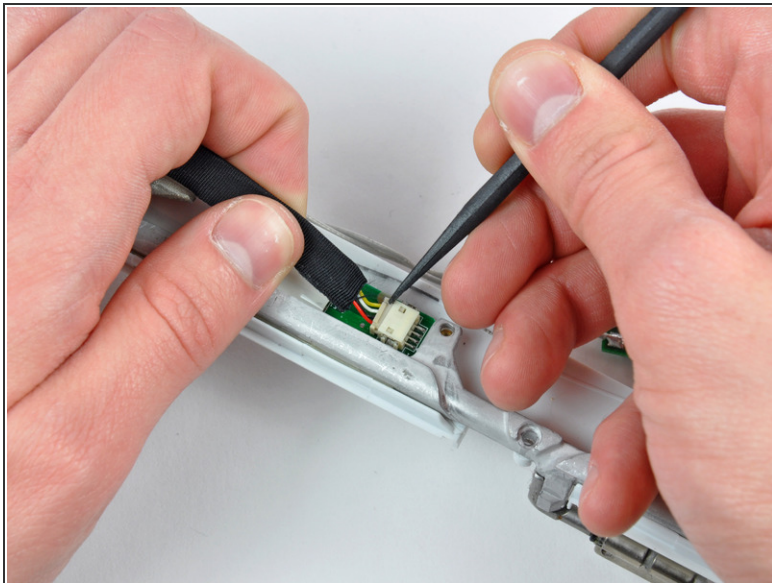
⚠ The antenna board is very thin and delicate.

Step 67



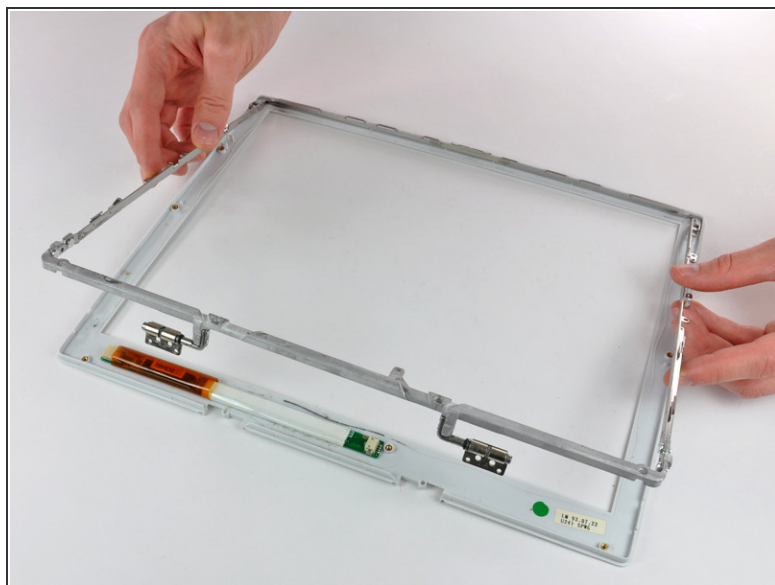
- Remove the single Phillips screw securing the front bezel to the middle of the cast aluminum clutch hinge frame.
- Carefully bend the front display bezel away from the clutch hinges as you slide the two AirPort antennas out from under the clutch hinge frame.

Step 68



- While pulling the inverter cable away from its socket on the inverter board, use the tip of a spudger to push the connector out of its socket.
- ⓘ If the connector won't budge from its socket, insert a metal spudger or similar tool into the gap between the connector and its socket and twist to separate the two pieces.

Step 69 — Clutch Hinges



- Remove the six Phillips screws securing the clutch hinges to the front display bezel.
- Lift the clutch hinges off the front display bezel.

To reassemble your device, follow these instructions in reverse order.

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